FACTS Reports

Field Actions Science Reports
The journal of field actions

Vol. 6 | 2012
Vol. 6

Is sport hunting a breakthrough wildlife conservation strategy for Africa?

A case study of northern Cameroon

La chasse sportive, une stratégie de préservation de la faune innovante pour l'Afrique ? Etude de cas dans le nord du Cameroun

La caza deportiva: ¿una estrategia de conservación innovadora para África? Un estudio de caso en el norte de Camerún

Akito Yasuda

OpenEdition Journals

Electronic version
URL: http://journals.openedition.org/factsreports/1362
ISSN: 1867-8521

Publisher
Institut Veolia

Electronic reference
Akito Yasuda, « *Is sport hunting a breakthrough wildlife conservation strategy for Africa?* », *Field Actions Science Reports* [Online], Vol. 6 | 2012, Online since 27 March 2012, connection on 30 April 2019. URL : http://journals.openedition.org/factsreports/1362

http://factsreports.revues.org/1362
Published 27 March 2012

FACTS Reports

Is sport hunting a breakthrough wildlife conservation strategy for Africa? A case study of northern Cameroon

Akito Yasuda

JSPS (Japan Society for the Promotion of Science), Tokyo University, Kyoto University

Abstract. Sport hunting is one of the oldest known recreational activities using wildlife. Some researchers have suggested that sport hunting can benefit the development and economy of local communities, thereby promoting the protection of wildlife resources as well as both ecological and economic sustainability. However, important debates remain regarding the social impacts of conservation and tourism on local communities near protected areas.

This study using a case study from northern Cameroon aimed to 1) analyze the social impacts of sport hunting on local people and 2) discuss sustainability of sport hunting. Approximately two years of fieldwork, mainly based on interviews and observations in two villages, showed that sport hunting generated tax revenues of approximately US$1.2 million in one season as well as provided profit sharing and employment opportunities for local communities. However, the local people were affected by regulations of their rights to use natural resources. Moreover, some villages experienced forced migration for the beginning of sport hunting.

Many officers and hunting operators insist that sport hunting entails ecological and economic sustainability because it is operated under strict regulations and generates enormous tax revenues. This is in contrast to hunting by local people, who do not consider the hunting regulation nor pay taxes. The question remains, however, whether the term "sustainability" should only encompass ecological and economic factors. Even if sport hunting plays an important role in community conservation, the social impacts on local communities should be considered before the activity is considered as a viable tactic for wildlife conservation.

Keywords. Sport hunting, Sustainability, Wildlife conservation, local people, Social impact, Community Conservation.

1 Introduction

Sport hunting, also known as trophy hunting, game hunting, and safari hunting, involves the hunting of wildlife for sport or recreation. This old form of recreation remains active today, and the significance of consumptive wildlife tourism, including sport hunting and fishing, has been increasingly highlighted (Lovelock eds., 2008). Africa is considered as "Mecca" or "home" for sport hunters from all over the world, and over half of Sub-Saharan African countries officially authorize sport hunting (Roulet, 2004). More than 18,500 hunters, mainly from the USA and Europe, visit these countries each year, generating annual gross revenues of at least US$201 million (Lindsey *et al.*, 2007).

Sport hunting plays an important role not only in the tourism industry, but also in conservation policy in Africa. The Community Conservation model aims to involve local people as the main leaders in conservation and resource management activities by sharing the revenues and employment opportunities generated from conservation and tourism (Adams and Hulme, 2001). Some researchers and governments regard sport hunting as a tool that can be used to support strongly Community Conservation (Baker, 1997; Chardonnet *et al.*, 2002). As an example, in the CAMPFIRE (Communal Areas Management Programme for Indigenous Resources) project in Zimbabwe between 1989 and 2001, 89% of the total project revenue came from sport hunting, and about half of the total project revenue was disbursed to communities (Frost and Bond, 2008). Moreover, some researchers have argued that sport hunting is both economical and ecologically sustainable (e.g. Backer, 1997; Bond *et al.*, 2004; Lindsey *et al.*, 2007). That is, sport hunting can support wildlife conservation policies and local development by providing huge amounts of revenue, and it can ensure ecological conservation through the enforcement of strict hunting rules.

Correspondence to: Akito Yasuda
yasudakeyaki@gmail.com

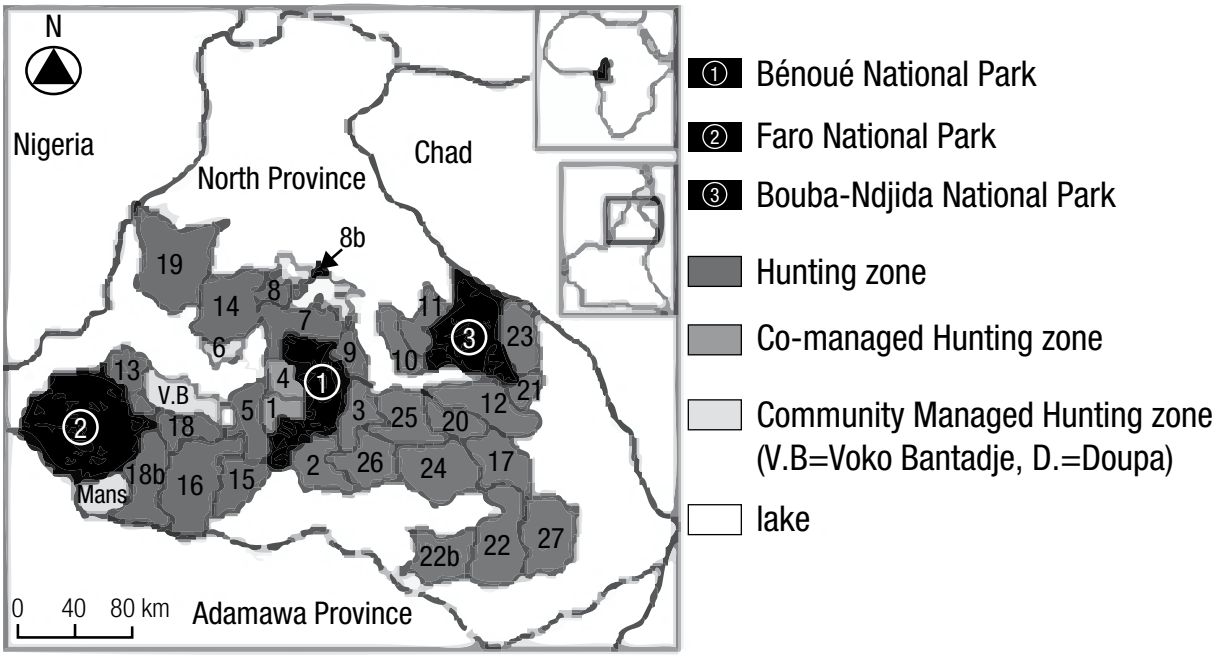

Figure 1. Hunting zones and national parks in the North Province
Source: MINFOF (2002) and annual reports of the ministries

However, important debates remain regarding the social impacts of conservation and tourism on local communities near protected areas, such as the regulation of local livelihoods, destruction of traditional life styles and culture, and the imposition of forced migration. These debates are receiving increasing attention from researchers (e.g. Fairhead and Leach, 2000; Chapin, 2004). For example, in 2004, 500 people were forced to move from the Nechasar National Park in southern Ethiopia (Pearce, 2005). The impacts of sport hunting on local communities have not been sufficiently included in the argument.

This paper examines a case study in northern Cameroon. Although sport hunting occurs on a smaller scale in Central and West Africa than in Southern and East Africa (Lindsey *et al*., 2007), Cameroon is one of the most popular countries for sport hunting in Central and West Africa (Roulet, 2004). In Cameroon, sport hunting has historically been practiced in hunting zones around national parks in the North province. The model of Community Conservation policy that is based on sport hunting was introduced to Cameroon from Southern and Eastern Africa in the 1990s. In 1994, Cameroon government revised the law and ordered that 10% of the rent of hunting zones be given to local communities. Cameroon is in now transitioning to the Community Conservation policy based on sport hunting. However, little research has examined the social impacts of sport hunting on local communities in Cameroon (e.g. Mayaka, 2002).

This paper introduces a case study in northern Cameroon to examine the actual impacts (both positive and negative) of sport hunting on local communities. The term "sustainability" is considered in the context of sport hunting by highlighting the relationship between sport hunting and local communities. The results show that sport hunting in northern Cameroon has generated huge amounts of tax revenue and could support Community Conservation, but at the same time it has imposed restrictions on the livelihoods of local people and has forced migration.

2 Study site and research methods

Most of the North Province is covered by the Sudan savanna (MINEF, 2002). African elephant (*Loxodonta africana*), lion (*Panthera leo*), and Darby's eland (*Taurotragus derbianus*), the biggest antelope in Africa, live in the area. Annual rainfall is approximately 100 to 140 cm and the area has rainy (May-October) and dry (November-April) seasons.

I conducted field research in two villages (called "A" and "B" here to protect local villagers). Village A was located in hunting zone 3, on the east side of Bénoué National Park, and village B was in ZICGC (a community-managed hunting zone; see later discussion) Mana, which is south of Faro National Park (Figure 1). Hunting zone 3 was established in 1968 and was leased in 1992 by a French operator. ZICGC Mana was established in 2000 and leased in 2009 by a Spanish operator, but sport hunting had not begun as of February 2011.

In village A, I conducted fieldwork for approximately 22 months between 2005 and 2011. In 2007, village A had 287 inhabitants and 25 households, and 93% of the villagers were an agricultural people, called Dii (or Duru). Most of the villagers speak three languages: Dii, Fula and French. Interviews were conducted in French, but with older people who did not speak French, I conversed through a translator. The survey was based on social anthropological approaches (Chambers, 1994) using participant observations during livelihood activities such as farming, fishing, and hunting. I also

Table 1. The mammals in Class B and Hunting Tax

			Hunting Tax (US$/head)*		
	English name	**Scientific name**	**Tourist**	**Resident**	**National**
Group I	Elephant (ivory more than 5kg)	*Loxodonta africana*	2073	1659	207
	Derby's eland	*Taurotragus derbianus*	2073	1244	207
	Bongo	*Tragelaphus euryceros*	2073	1659	124
	Roan antelope	*Hippotragus equinus*	1037	829	124
	African buffalo	*Syncerus caffer*	1037	829	124
	Hippopotamus	*Hippopotamus amphibius*	1037	622	124
	Topi	*Damaliscus lunatus*	415	207	41
Group II	Waterbuck	*Kobus ellipsiprymnus*	518	311	41
	Hartebeest	*Alcelaphus buselaphus*	415	207	73
	Sitatunga	*Tragelaphus spekei*	415	207	31
	Kob	*Kobus kob*	207	104	31
	Bushbuck	*Tragelaphus scriptus*	207	166	31
	Common warthog	*Phacochoerus africanus*	207	166	31
	Red river hog	*Potamochoerus porcus*	207	104	31
	Giant hog	*Hylochoerus meinertzhageni*	207	124	31
	Yellow-backed duiker	*Cephalophus silvicultor*	207	104	21
	Bay duiker	*Cephalophus dorsalis*	104	62	10
	Peter's duiker	*Cephalophus callipigus*	104	83	10
	Spotted hyaena	*Crocuta crocula*	83	41	21

*1US$=482.3FCFA, 1 Euro=655.957FCFA

(Source) laws "Extrait de la loi finance Article 9,1er juillet 1996" and "14 Aout 1998 ARRETE No.0565 /A/MINEF/DFAP/SDF/SRC Chapitre1 Article3"

conducted free-style interviews approximately 30 people by random selection. This research was used to identify and ascertain peoples' livelihoods and the impacts of sport hunting conducted around the village.

In village B, I conducted field research during 2 months in 2011. The village has 26 households with 80 villagers; 56% of them were an agricultural people, called Mboum, 28% are Péré, and the rest were of mixed ethnicity. I used the same methods as used in village A and examined the establishment of the hunting zone and its effects on local people. I interviewed approximately 15 villagers using a translator between French and Fula.

In addition, I interviewed the officers of relevant Ministries (MINEF; the Ministry of Environment and Forestry, and MINFOF; the Ministry of Forestry and Wildlife) and four hunting operators who operated in the hunting zone around village A to understand their opinions about the social impacts of sport hunting on local people. To understand the extent of sport hunting, I collected documents and reports that were issued by the Ministries and non-government organizations in the provincial capital, Garoua and in the national capital, Yaoundé.

3 Results

3.1 Sport hunting in Cameroon

The North Province in Cameroon contained three national parks and 32 hunting zones in 2011 (Figure 1). In the national parks, all human activities are prohibited except for

Table 2. License fee and quota for each hunting permit

	License fee (US$)*			Maximum number of different wildlife for hunt		
	Tourist	**Resident**	**National**	**Group I from Class B**	**Group II from Class B**	**Group III from Class C**
hunting license for big game	881	518	270	2	4	0
hunting license for medium game	446	321	135	0	4	4
hunting license for small game	270	218	93	0	0	20/year
hunting license for small game (bird)	228	156	73	0	0	5 weeks

*include the expense of allocation and stamp 1US$=482.3FCFA, 1 Euro=655.957FCFA

(Source) laws "Extrait de la loi finance Article 1,1er juillet 1996" and "14 Aout 1998 ARRETE No. 0565 /A/MINEF/DFAP/SDF/SRC Chapitre3"

photographic safari and scientific research. Sport hunting takes place in hunting zones outside the parks; hunters must obtain a license from the government and pay hunting taxes. Local people can also reside in hunting zones.

Wild animals in Cameroon are classified as A, B, and C in accordance with Section 78 of Law No.94-1 of 20 January 1994 to Lay Down Forestry, Wildlife and Fisheries Regulation, hereafter "the Law." Class A species, such as elephant (ivory less than 5 kg), giraffe, and leopard are completely protected and may not be killed. Class B and C species, which are categorized into group 1, 2, and 3 for quotas, may be hunted with a permit (Table 1 and 2). Sport hunters can hunt animals from classes B and C, but only within set quotas.

Each hunting zone is leased by the government for US$0.15/ha/year to resident hunting operators, most of whom are from Europe. In the 2010/2011 season, the 21 lessees were French (43%, 9 people), Spanish (14%, 3), Italian (10%, 2), Belgian, Cameroonian, Danish, German, Russian, and Turkish (each 5%, 1) (MINFOF, 2010). The leases must be renewed every 5 years, and lessees obtain rights to use natural resources in their zones, construct or convert hunting camps, and host hunters. According to ministries data and annual reports (Ministry of Tourism, MINEF, and MINFOF), until the end of 1980s, relatively high numbers of hunting licenses were issued each year (around 350 to 400 per year). However, since the economic crisis in 1986, the number has been decreased to approximately 200 per year. In the last five years, almost all of the hunting licenses were for European and North American hunters, especially hunters from France and the United States (Figure 2).

In the North Province, hunting zones are classified into three types; hunting zones (ZIC: Zone d'Intérêt Cynégétique), co-managed hunting zones (COZIC: Cogestion Zone d'Intérêt Cynégétique), and community managed hunting zones (ZICGC: Zone d'Intérêt Cynégétique à Gestion Communautaire) (see Figure 1 and Table 3). Hunters visiting Cameroon must pay hunting operators for a license and game taxes for the animals they hunt. In major hunting zones (ZIC), most of these taxes and fees go to the national coffers and MINFOF, but in COZICs and ZICGCs, large portions of the revenue are distributed to community commissions, composed of several villagers living in the hunting zone. COZICs and ZICGCs were established with the introduction of Community Conservation model, which is based on sport hunting and started in Southern and Eastern Africa.

In 2008, the annual tax revenue generated from sport hunting, including license fees, game fees, and rent of hunting zones, reached approximately US$1.2 million, which was about 310 times higher than the revenue gained from photographic safari in national parks in the North province (about US$4,500). As the result of the government emphasizing the value of tax revenue from sport hunting (MINEF, 2002), hunting zones have been expanded. In 2011, hunting zones occupied 2.61 million ha in 32 blocks, which was 3.6 times larger than the area in 1968 when hunting zones were first established (0.73 million ha in 16 blocks).

3.2 Profit sharing and employment opportunities

In ZICGC Mana, sport hunting had not yet begun and thus village B had not received profit sharing and employment opportunities. In village A the economic profits generated from sport hunting have had considerable social impact, although, not all of the villagers have benefited as explained below.

As of January 2007, 22 men between the ages of 19 and 57 (40% of the men between 19 and 60 in the village) were employed by hunting operators in capacities such as trackers, skinners, porters, road workers, and other odd-jobs men. These activities constituted a major part of the annual income for those who had an important position, such as tracker or skinner (18% of the employees), but not for road workers and

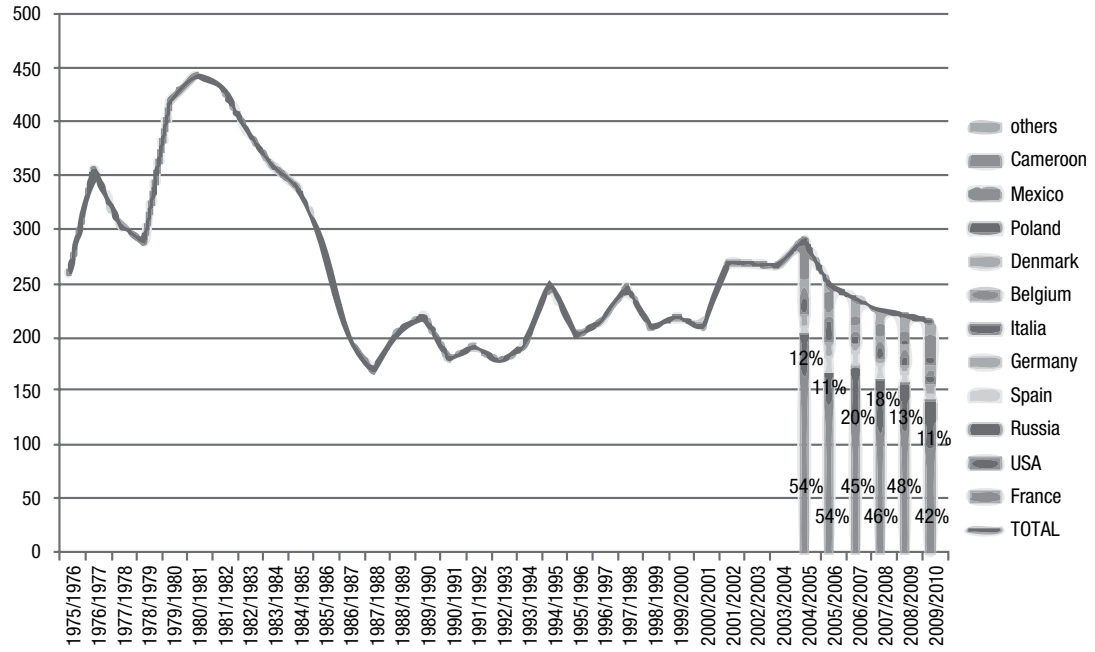

Figure 2. The number of hunting license and nationality of hunter issued in North Province during 1975 and 2009
note: Percentages indicate the rate of France and the USA. "Others" contains Australia, Australia, Belgium, Canada, Central African Republic, Denmark, Guatemala, Hungary, India,Lebanon, Macedonia, Mexico, Namibia, Netherland, Poland, Portugal, South Africa, Sweden, Swiss, Turkey, UK, Zimbabwe
Source: Annual reports of ministries

other odd-jobs men. For example, a skinner earned US$829 during the 5 months of the hunting season, which is about 85% of the annual household income. A road worker, however, earned only US$68 for 1 month's work.

For profit sharing from hunting zone rent, village A established a community commission with six other villages. The commission consisted of one president and four members from the village and 17 members from other villages. The members were called "community anti-poaching members" and cooperated with the government's and operators' anti-poaching activities. The commission received dividends of US$1,885 in 2007, of which 33% was spent to repair or construct a school, and 64% was used to pay salary and purchasing shoes for the commission members. Only five residents of the study village (1% of all villagers) enjoyed most of the benefits.

3.3 Livelihood regulation and forced migration

Concerning the regulation of livelihoods, each hunting operator who leases a hunting zone obtains the right to use and exploit the natural resources in that zone. On the other hand, the rights of local people to graze, fish, and cut down trees in hunting zones are restricted by hunting operators as well as the ministry. Hunting by local people has also been strictly banned, which causes conflict between hunting operators and local people.

Hunting activities by local people are considered illegal in hunting zones, where hunting licenses and tax payments are required to hunt animals, and only hunting operators have the right to use the natural resources. During my fieldwork, I never met a villager who had a hunting license or who would have been able to afford the high tax on one. Even outside the hunting zone, a person who has no hunting license is only permitted to engage in "traditional hunting," or hunting that targets class C wildlife and uses weapons made from materials of plant origin in accordance with Section 86 of the Law. Hunting with guns or wire traps, which local people now practice, is considered illegal (MINEF, 2002). Thus, whether the hunting occurs inside or outside a hunting zone, the present methods used by local people ensure that the activity is regarded as poaching.

Regular monitoring of poaching has been conducted by Ministry officers and employees of hunting operators who form "anti-poaching teams." Poachers caught by these teams are arrested and taken to the Ministry, gendarmerie, and police. The courts can fine poachers up to US$20,000 and/or imprisoned them for one year in accordance with the Law. Prison records from towns near village A and B show that 451 people were imprisoned in 2008, and about 121 of them (27%) were charged with poaching (Figure 3). The increasing trend in both the rate and the number of arrested poachers seems to be the result of strengthening control over poaching by hunting operators and MINFOF with the support of international non-government organizations. The Global Environment Facility project, which involved cooperation among the World Bank, SNV (Netherlands Development Organization), and WWF (World Wide Fund for Nature) between 1994 and 2000 in northern Cameroon, placed a high value on anti-poaching (GEF, 2003). The WWF has continued activities based on hunting control in this area.

Table 3. Three types of hunting zone in Cameroon

	hunting zone (ZIC)	**co-managed hunting zone (COZIC)**	**community managed hunting zone (ZICGC)**
The number of sections	27	2 (COZIC1 and 4)	3 (ZICGC Mana, Doupa, Voko-Bantadjé)
Administrators	Hunting operator of MINFOF	MINFOF and community commissions	Hunting operator, MINFOF, and community commissions
Distribution of the rent	50% - MINFOF 40% - local council 10% - community commissions	50% - MINFOF 50%* - community commissions	100% - community commissions
Distribution of game fee	70% - national coffers 30% - MINFOF	100% - MINFOF 25%** - community commissions	50% - MINFOF 50% - community commissions

*the daily rent of hunting zone pay from hunters

**hunters must pay extra game fee for community commissions

The people in village A do not have enough livestock to sustain household needs, and wildlife is an important source of daily protein. According to interviews and observations, villagers mainly hunted antelopes using wire traps, bows and arrows, and guns. Game hunted by sport hunters belongs to the hunter in accordance with Section 96 of the Law, and the most of game meats is consumed in the hunting camp by hunters and employees. Only when a hunter killed an elephant or hippopotamus did the operator call villagers to divide the remainder of the flesh, but during the research periods this occurred only once or twice a year.

Around village B, hunting was controlled by Ministry officers. "Anti-poaching teams" were not active there because sport hunting has not started as of February 2011. But in December 2010, villagers received notices from the MINFOF directing them not to conduct illegal hunting. The beginning of sport hunting tourism by the Spanish operator in this area will likely increase the emphasis on hunting control.

However, village B has already suffered from forced migration because of preparations for hunting tourism. The interview revealed that in November 2009, village B consisted of two villages that were located far from the main road and ruled by a local kingdom. After the leasing of ZICGC Mana, the Spanish operator wanted to move the two villages because they were located in a good hunting area. The operator called on the king of the local kingdom (*Lamido*) to order the two villages to move. At first, the chiefs of the villages believed the order was not real and did not move. In March 2010, however, the king ordered them to relocate within three days. The villagers complied and relocated to an area that was within a five minutes walk from the hunting camp of the Spanish owner. As compensation, they received approximately US$10 for each household. The two villages were combined and renamed "*wouro dol*é" in Fula, which means "village of obligation."

Responding to such a situation, one of the hunting operators near village A told the villagers: "I built a classroom in this village and have employed you in my camp. However, ivory has been shortening year by year because of poaching. What will you do if children cannot work in the camp?" (11 Mar. 2007). An officer stated: "The local people hunt wildlife without paying taxes or considering the sex and age of animals. The hunting they do is not sustainable. That is why their hunting is banned" (18 Jun. 2007). These statements suggest that the hunting operators and officers see hunting by local people as unsustainable and adversely affecting wildlife.

On the other hand, residents of village A stated that the "white man bought this land" (age 21, male, 27 Mar. 2007) and that they "just want to hunt wildlife to eat on some days" (age 43, male, 5 Apr. 2007). Presently, local people have no means to protest or appeal. Under this repressive situation, some people have been trying to obtain profits from both sport hunting (such as employment opportunities and profit sharing) and bush meat by poaching for their livelihood, For example I met one villager who was a member of an anti-poaching team, but conducting illegal hunting, and a ministry officer may also have been a poacher (Weladji and Tchamba, 2003).

4 Conclusion and discussion

This case study of northern Cameroon has examined the actual impacts (both positive and negative) of sport hunting on local communities and has consider the "sustainability" of sport hunting by highlighting the relationship between sport hunting and local communities. In northern Cameroon, sport hunting generated far more revenue than photographic safari in national parks. Although, most of these revenues go to the national coffers and the MINFOF, local communities located in hunting zones have received dividends from the MINFOF. Recently this profit sharing has been emphasized during the establishment of ZICGC and COZIC. However, the distribution of revue has not been equal among villagers. In village A, only 1% of all villagers enjoyed the dividends. Moreover,

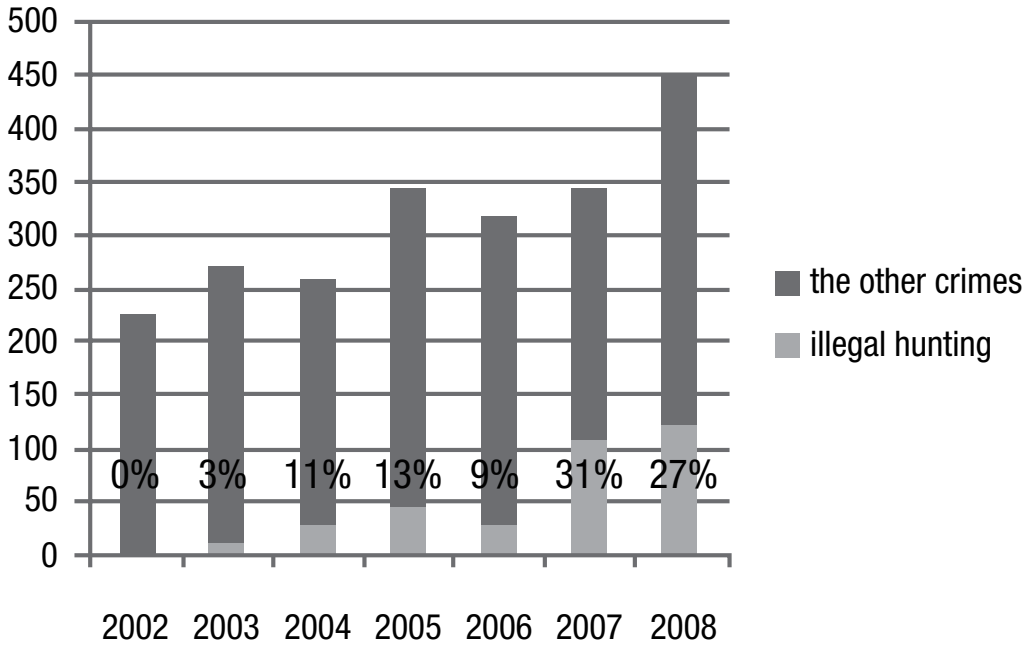

Figure 3. The number of imprisoners in the two prisons near village A and B
note: The percentage show a rate of prisoners charged with poaching.
Source: Record book of the two prisons

sport hunting in study area had negative effects on villagers by restricting their rights to use natural resources and by imposing forced migration. The livelihoods of local people, particularly their hunting activities, have been controlled because of sport hunting and the wildlife conservation policy. In addition, village B suffered forced migration imposed through the traditional governance structure.

Some researchers have argued that sport hunting plays an important role in the tourism industry and Community Conservation and might represent a "breakthrough" wildlife conservation strategy for Africa. This theory appears to be based on the "success" of Community Conservation project focused on sport hunting in Southern Africa, such as CAMPFIRE in Zimbabwe and ADMADE in Zambia. Wildlife conservation on private lands has also been deemed successful. For example, private land owners in Namibia and South Africa have converted cattle or farm ranches into game ranches, and more income has been generated through wildlife conservation and use (hunting, cross-breeding, selling) than by farming and grazing (Barnes and Brian, 2009; Child, 2009). Jones (2009) considered the benefits and costs to local people of community-based natural resource management (CBNRM) programs in Botswana, Namibia, Zambia and Zimbabwe. He concluded that although actual livelihoods or poverty impacts of benefits were difficult to measure, CBNRM could provide a range of benefits to local communities and even small amounts of cash could have significant impacts on livelihoods.

However, as noted above, sport hunting may also cause significant social problems within communities. Although the government has been increasing the portion and improving the distribution of economical benefits from sport hunting for communities, regulations on local livelihoods have been imposed. This suggests that the conservation and tourism policy in northern Cameroon has only considered ecological and economic viewpoints. That is, the authorities have disregarded the rights of local inhabitants to reside in hunting zones and to use natural resources and have regarded their livelihoods as "unsustainable", unlike sport hunting by Westerners, such as the officer stated. Such views are not new. In the colonial period, Western hunters regarded their hunting as noble and thrifty sport hunting (Ritvo, 1987; Neumann, 1998). On the other hand, they delineated from uncontrolled and "savage" hunting by the local people and insisted that the man who exterminated the game of Africa in colonial period was the African himself, despite their excessive hunting with modern weapons (Bryden, 1905: 17). It seems that the differentiation between sport hunting and hunting by local people has continued, now seen through the lens of sustainability.

Can the positive and negative impacts offset each other? For example, if local people can afford to buy meat for their daily protein using dividends from sport hunting, can (and should) they abandon their hunting? Local livelihoods are not only a simple economic activity, but also have important cultural and social aspects. These aspects of hunting activity were historically indicated (e.g. Morgan 1979). Therefore, the impact on local communities must not be evaluated from only an economic view point. Moreover, as Brian (2009: 173) pointed out, more decision-making authority needs to be given to local communities. At present in northern Cameroon, local communities have little voice or opportunity to present their concerns or claim their rights. To address the social impacts of sport hunting on local communities, the communities

need to be involved in the decision-making structure of local resource management.

Research concerning sport hunting and wildlife conservation must also focus on local and regional characters. In Western and Central Africa, sport hunting is conducted on national land, unlike the private hunting lands in Southern and Eastern Africa (Lindsey *et al*., 2007). The case study presented here suggests that sport hunting on national land that contains villages may create more problems for local community than hunting on private land. Frisina *et al*. (2009) argued that the Community Conservation project based on sport hunting in Pakistan has a success due to effective management for unique social characteristics and needs of the tribal society than modern wildlife science. To make sport hunting a viable tactic for wildlife conservation, we must incorporate not only ecological and economical approaches, such as a surveys to determine the actual ecological sustainability of local hunting, but also social and political ones that focus on the social impacts of sport hunting on local livelihoods.

Acknowledgments

This study was funded by Grant-in-Aid for JSPS Fellows, Sasagawa Scientific Research Grant from The Japan Science Society, Shibusawa Fund for Ethnological studies, and Support Program for Improving Graduate School Education of ASAFAS. I appreciate to Professor M. Ichikawa, Professor S. KITOH, Professor D. KIMURA, and Associate Professor G. Yamakoshi. I also truly appreciate to all villagers, the operator of Hunting Zone, MINFOF, MINRESI and WWF for their unreserved collaboration and hospitality.

References

Adams, W. and D. Hulme. 2001. Conservation & community: Changing narratives, politics & practices in Africa conservation. In African wildlife & livelihoods: The promise and performance of community conservation, ed. D. Hulme and M. Murphree, 9-23. Oxford: James Currey.

Baker, J. E. 1997. Trophy hunting as a sustainable use of wildlife resources in southern and eastern Africa. Journal of Sustainable Tourism 5 (4): 306-321.

Barnes, J. and B. Jones. 2009. Game ranching in Namibia. In Evolution and Innovation in Wildlife Conservation, eds. H. Suich, B. Child and A. Spencely, 113-126. UK: Earthscan

Bond, I., B. Child, D. de la Harpe, B. Jones, J. Barnes, and H. Anderson. 2004. Private land contribution to conservation in South Africa. In Parks in transition, ed. B. Child, 29-61. UK: Earthscan.

Bryden, H. A. 1905. Introductory. In Big game shooting Vol.2, ed. Horace G. Hutchinson, 3-18. London: Country Life.

Chambers, R. 1994. The origins and practice of participatory rural appraisal. World Development 22(7): 953-969.

Chapin, M. 2004. A challenge to conservationists. World Watch 17(6): 17-31.

Chardonnet, P., B. des Clers, J. Fischer, R. Gerhold, F. Jori, and F. Lamarque. 2002. Value of wildlife. Revue Scientifique et Technique 21(1): 15-51.

Child, B. 2009. Recent Innovation in Conservation. In Evolution and Innovation in Wildlife Conservation, eds. H. Suich, B. Child and A. Spencely, 277-288. UK: Earthscan

Fairhead, J. and M. Leach. 2000. The nature lords. Times Literary Supplement 5th May 2000:3-4.

Frisina, M. R. and S. N. A. Tareen. 2009. Exploitation prevents extinction: case study of endangered Himalayan Sheep and Goat. In Recreational hunting, conservation and rural livelihoods: science and practice, eds. B. Dickson, J. Hutton and W. M. Adams, 141-156. UK: Wiley-Black Well.

Frost, P. G. H. and I. Bond. 2008. The CAMPFIRE programme in Zimbabwe: Payment for wildlife services. Ecological Economics 65:776-787.

GEF. 2003. Report No.26746 Implementation Completion Report on a Grant in the Amount of US$6 million to the Republic of Cameroon for a Republic of Cameroon Biodiversity Conservation and Management Project September 2003. Online. http://www.gefonline.org/Juan/TER/FY%202004/Terminal%20Evaluations-ICRs-Audits/WB/Cameroon%20bio%20conservation/85%20Cameroon%20Bio%20Conservation%20ICR.pdf. (Accessed Jan. 8th, 2006)

Jones, B. T. B. 2009. Community benefits from safari hunting and related activities in Southern Africa. In Recreational hunting, conservation and rural livelihoods: science and practice, eds. B. Dickson, J. Hutton and W. M. Adams, 157-177. UK: Wiley-Black Well.

Lindsey, P. A., P. A. Roulet, and S. S. Romanache. 2007. Economic and conservation significance of trophy hunting industry in sub-Saharan Africa. Biological Conservation 134:455-469.

Lovelock, B. eds. 2008. *Tourism and the consumption of wildlife hunting, shoting and sport fishing.* Routledge. New York.

Mayaka, T. B. 2002. Wildlife co-management in the Bénoué National Park –Complex, Cameroon: A bumpy road to institutional development. World Development 30 (11): 2001-2016.

MINEF. 2002. Plan d'amenagement et de gestion du parc et de sa zone peripherique 2002-2006. Garoua, Cameroon. (French)

MINFOF. 2010. Annual rapport annuel de la delegation provincial des forêts et de la faune du nord exercice 2009. Garoua, Cameroon. (French)

Morgan, C. J. 1979. Eskimo hunting group, social kinship, and the possibility of kin selection in humans, *Ethology and Sociobiology* 1 (1): 83-86.

Neumann, R. P. 1998. Imposing wilderness: Struggles over livelihood and nature preservation in Africa. Berkeley: University of California.

Pearce, F, 2005, Big game loser, *New Scientist* 186 (2495): 21.

Ritvo, H. 1987. The animal estate: The English and other creatures in the Victorian Age. Cambridge, Massachusetts: Harvard University Press.

Roulet, P. A. 2004. Chasse sportive et gestion communautaire de la faune sauvage en Afrique central. Game and Willife Science 21(4): 615-632. (French)

Weladji, R. B. and M. N. Tchamba. 2003. Conflict between people and protested areas within the Bénoué Wildlife Conservation Area, North Cameroon. Oryx 37(1): 72-79.